

REMARKS/ARGUMENTS

Claims 1 through 34 remain in this application. No claims are amended. No claims are cancelled. No claims are added. Accordingly, claims 1 through 34 remain pending.

Applicant has thoroughly reviewed the outstanding Office Action including the Examiner's remarks and the references cited therein. The following remarks are believed to be fully responsive to the Office Action and, when coupled with the above amendments, are believed to render all claims at issue patentably distinguishable over the cited references.

Applicants respectfully requests reconsideration in light of the following remarks.

CLAIM REJECTION-35 U.S.C SECTION 102 (b)

With respect to Page 2 of the Office Action, the Examiner rejected Claims 1-3, and 14 that were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,329,625 to Kannan et al.

The Examiner is of the opinion that Kannan et al ('625) discloses a computer peripheral input system with two input types, comprising a keyboard device (20) for inputting a first input data and generating a first input signal, a digitizer tablet device (14, 18) for inputting a second input data and generating a second input data, and a control means having communication interface (service

processor 24) installed therein.

Kannan et al ('625) disclosed a digitizer tablet computer that has a host processor connected to a service processor which, in turn, is connected to a digitizer controller and to a power subsystem microcontroller whereby primary control of a keyboard, a digitizer, and a power subsystem is off loaded from the host processor to the service processor (Abstract). Kannan et al ('625) disclosed the feature is that digitizer tablet computer (DTC)(10) includes a digitizer (14) mounted beneath a backlighted liquid crystal display (LCD)(16), and a pen or stylus (18), which form the primary input/output means for entering information into and getting information out of the computer. DTC (10) also includes means for connection to other I/O devices for use at locations where it is convenient to do so.

In addition, Kannan et al disclosed the DTC (10) includes four different programmable digital microprocessors or microcontrollers comprising "a host or main processor (22)", "a service processor (SP)(24)", "a digitizer controller (26)", and a power subsystem microcontroller (PSM) 28, which perform various distributed functions or operations in a manner.

Moreover, Kannan et al disclosed SP (service processor)(24) controls keyboard (20), digitizer 14, system buttons comprising switch 84 and pots 96, and power subsystem (78). SP (24) interfaces with the host processor over bus 60 via a standard PS/2 keyboard controller interface modified to support the digitizer and power subsystem. In the disclosure of Kannan et al disclosed the interface between host

system (130) and SP (24) comprises three “8-bit” registers: output buffer (136), input buffer (134), and CSR (controller status register) 132. Such “hardware is similar to a standard PS/2 keyboard controller interface” and is implemented using a built-in “Universal Peripheral Interface (UPI) of the specific microprocessor forming the service processor, which some external glue logic (col. 5, line 64-col. 6, line 3).

Regards as present invention recited the computer peripheral input system, a keyboard device is used as the first input module and a digitizer tablet system is used as a second input module. The present invention also recited a micro-controller and universal serial bus interfaces (USB interface) are respectively served as the control means and communication interface installed therein (page 6, lines 10-12). The **“universal serial bus interface served as a message communication channel between the micro-controller and the computer host”**. As a result, **“the keyboard device and the digitizer table system can share the universal serial bus interface merely having an endpoint 0 and an endpoint 1”**. The present invention also recited the function of the endpoint 0 and endpoint 1 of the USB, the endpoint 0 is used for receiving and sending data, and the endpoint 1 is used for sending data, i.e., sending data from **“computer peripheral devices, such as “keyboard and digitizer tablet” to the computer host”**. Thus, the input data of the keyboard device and digitizer tablet system can be sent to the computer host through “endpoint 1 of the USB interface”. **Thus, the sending data and receiving data between the computer host and the computer peripheral device through the USB interface device.**

Nevertheless, the reference citation Kannan et al disclosed the communication interface between the **host system and SP (service processor) is a “three 8-bit registers”**. The present invention recited the **communication interface between the “computer peripheral devices”, and “computer host” is “USB interface device”**. The reference citation Kannan et al disclosed the communication interface is **“PS/2 keyboard interface”** that between the **host system and SP (service processor)**. **The SP 24 is one of the programmable digital microprocessors or microcontroller. The SP 24 is a connected to a connector which allows a keyboard to be attached to computer and operated under the control of the service processor.** Thus, the communication interface is between the SP and host system as Kannan et al disclosed which differs from the communication interface is between the host system and the computer peripheral system as the present invention recited. Thus, the present invention differs from the reference citation Kannan et al. Thus, Kannan et al cannot anticipate above Claims 1-3, and 14. Thus, the Examiner's rejection can be traversed.

CLAIM REJECTION-35 U.S.C. SECTION 103 (a)

With respect to Page 2 through Page 4 of the Office Action, the Examiner rejected Claim 4-6, 8-9, 12, 19-22, 25, and 27-29 that were rejected under 35 U.S.C. 103 (a) as being unpatentable over Kannan et al in view of Abernethy (U.S. Patent No. 5,525,981).

The Examiner alleges that the combination of the disclosure of

Kannan et al in view of Abernethy et al (U.S. Patent No. 5,525,981) can unpatentable above Claims.

According to the disclosure of Abernethy et al, the cordless transducer/cursor is in the combination with a digitizer tablet for **receiving the serial stream of binary pulses wirelessly transmitted from the transducer/cursor** wherein the tablet includes receiver means for **receiving the serial stream of binary pulses wirelessly transmitted from the transducer/cursor**. Abernethy et al **DID NOT disclosed the keyboard serving for inputting first input data**, and generates a **first input signal** (actuated key data); and a digitizer tablet devices serving for inputting a **second input data**, and generating a **second input signal**. In addition, Abernethy et al **did not disclose “transforming the second input signal to a first digital signal and a second digital signal”**. Abernethy et al **ONLY** disclose the tablet includes receiver means for **receiving the serial stream of binary pulses wirelessly transmitted from the transducer/cursor**. **The binary pulse signal did not distinct that includes the first input digital signal and a second digital signal respectively**. Furthermore, according to the abovementioned rejection 102 (b), the disclosure of Kannan et al cannot anticipate the present invention. Thus, the combination of the Kannan et al in view of Abernethy et al also cannot unpatentable the above claims. Thus, the Examiner's rejection can be traversed.

In addition, with respect to Page 4 through Page 5 of the Office Action, the Examiner rejected Claims 15 and 16 that were rejected under 35 U.S.C. 103 (a) as being unpatentable over Kannan et al and

Thornton (U.S. Patent No. 6,735,658).

The Examiner alleges that Kannan et al does not explicitly disclose the communication interface comprises a USB interface. However, Thornton teaches it is well known in the art that a USB is a serial bus standard that provides a method of coupling peripheral devices to a computer system. Thornton also teaches the USB peripherals include keyboards, mouse, tablet, light pen etc.

Thornton ('658) disclosed a system and method for operating a display device and one or more USB peripheral remotely from a host computer. The system may include a host computer, a display device, one or more USB compliant peripherals, a local extender operable to couple to the host computer system and a remote extender coupled to the local extender and to the display device and one or more USB peripherals.

The combination of the disclosure of Kannan et al ('625) in view of Thornton ('658), the USB interface of Kannan et al as modified by Thornton to comprise endpoint 0 and 1 uniquely define each device that's connected using the USB in order to distinguish each connected device and data from that particular connected device.

Regards as present invention, according to the response of Kannan et al, the communication interface is PS/2 standard interface that between the SP (service processor) and host computer which differs from the host system and the computer peripheral system as the present invention recited. Even Thornton ('658) disclosed "the host

computer system may generate a video signal intended for the display device, as well as one or more USB peripherals (Abstract). Nevertheless, the USB peripheral of Thornton ('658) cannot replace the communication interface such as PS/2 standard interface to connect the SP (service processor) and the host computer. Because of the USB communication interface utilized for connecting the host computer and the peripheral device, as Thornton disclosed that USB peripheral is between the host computer system and the peripheral device, but the communication interface between the SP (service processor) and the host computer is 8-bit register. That is, **the USB interface used to connect the host computer and the peripheral device, which differ the 8-bit register used to connect the SP (service processor) and the host system.** Thus, the combination of the disclosure of Kannan et al in view of Thornton cannot achieve the present invention.

Also, with respect to Page 5 of the Office Action, the Examiner rejected Claim 7 that was rejected under 35 U.S.C. 103 (a) as being unpatentable over Kannan et al and Abernethy et al as applied to claim 6 above, and further in view of Cheng et al (U.S Patent No. 5,365,253).

Cheng disclosed the micro-controller unit of the digitizer device is respectively connected to a host computer, and a main clock, which provides pulse waves (col. 2, lines 26-29). According to the disclosure of Cheng only disclosed the mouse (or stylus) project a signal onto the X-Y grid 1 of digitizer, the data counter immediately counts out the value. Cheng did not disclose the signal that is generated from the

keyboard. In addition, Cheng disclose the anti-noise circuit which is consisted of passive components and amplifiers. The signal Y grid would be amplified 5Y, and X grid is to be amplified 5X.

Nevertheless, the signal is generated from the mouse (stylus) is to be amplified, but lacks of the signal which is generated from the keyboard or other computer peripheral device. Therefore, Cheng merely disclosed the part technology of the present invention.

Therefore, the combination of Kannan et al as and Abernethy et al applied to claim 6 above, and further in view of Cheng et al still can not achieve the present invention.

Also, with respect to Page 5 through Page 6 of the Office Action, the Examiner rejected Claims 10-11 and 23-24 that were rejected under 35 U.S.C. 103 (a) as being unpatentable over Kannan et al and Abernethy et al as applied to claims 6 and 19 above, and further in view of Mletzko (U.S Patent No. 4,992,630).

The Examiner alleges that Mletzko taught a pressure signal waveform generation circuits comprising a **comparator circuit**. Nevertheless, according to abovementioned, the combination of disclosure of Kannan et al and Abernethy et al **did not discloses the USB interface can replace the PS/2 interface (8-bit register) that connects the SP (service processor) and the host computer**. Even Mletzko taught a pressure signal waveform generation circuits comprising a comparator circuit, which is a part of feature of the present invention. The combination of the disclosure of Kannan et al

and Abernethy et al as applied to claims 6 and 19 above, and further in view of Mletzko still cannot disclose the feature such as USB interface that connects host computer and the computer peripheral device. Thus, the combination of the disclosure of Kannan et al and Abernethy et al as applied to claims 6 and 19 above, and further in view of Mletzko cannot achieve the present invention. Therefore, the Examiner's rejection can be traversed.

Therefore, with respect to Page 6 through Page 7 of the Office Action, the Examiner rejected Claims 13 and 26 that were rejected as being over unpatentable over Kannan et al in view of Niedzwiecki (U.S. Patent No. 5,896,125) also can be traversed. Because of the combination of Kannan et al and Abernethy et al as applied to claims 6 and 19 above have been traversed that according to above response, the LED indicator is a well known technology, nevertheless, the disclosure of Kannan et al disclosed the communication interface between the **host system and SP (service processor) is a "three 8-bit registers"**. The present invention recited the **communication interface between the "computer peripheral devices", and "computer host" is "USB interface device"**. Thus, the communication interface is different and the connection relationship is also different between the Kannan et al and the present invention. Therefore, the Claims 13 and 26 can be traversed. In addition, the disclosure of Kannan et al cannot be anticipate the present invention in accordance with the response for 102(b), thus, the combination of the disclosure of Kannan et al in view of Niedzwiecki also can be traversed. Thus, the Examiner's rejection also can be traversed.

Conclusion

In the light of the above amendments and remarks, Applicant respectfully submits that all pending Claims 1 through 34 as currently presented are in condition for allowance. Applicant has thoroughly reviewed that art cited but relied upon by the Examiner. Applicant has concluded that these references do not affect the patentability of these claims as currently presented. Accordingly, reconsideration is respectfully requested.

This Amendment has been prepared by Applicant and is being filed by the undersigned attorney on Applicant's behalf.

Respectfully submitted,
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